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EXAMINER	
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3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/772,382	HUANG ET AL.	
	Examiner	Art Unit	
	Jonathan G. Sterrett	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 1-29-01.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-28 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-28 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Summary

Claims 1-28 are pending in the application

Claim Objections

1. Claim 6 objected to because of the following informalities: The verb 'obtain' in line 29 should be past tense, i.e. 'obtained'. Appropriate correction is required.

2. Claim 10 objected to because of the following informalities: The word 'computer' in line 9 page 15 is assumed to be 'compute'. Appropriate correction is required.

3. Claim 21 objected to because of the following informalities: The word '20' in line 18 page 15 has two commas after it. Appropriate correction is required.

4. Claim 25 objected to because of the following informalities: The claim refers to itself as the dependent claim (line 5 page 17). It is assumed to refer to the previous claim, claim 24, for purposes of examining. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 USC. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-21, 26-28 rejected under 35 USC. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. The term "high density" in claims 1, 14-26 is a relative term which renders the claim indefinite. The term "high density" is not defined by the claim, the specification

does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 USC. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-28 rejected under 35 USC. 103(a) as being unpatentable over Bayer US Patent 6,311,190 in view of Persistence Software Inc.'s "Live Object Cache" software product, referred to as LOC. This product is described in the following 2 references: US Patent 5,615,362 hereafter referred to as Reference A and PRNewswire, "Second Patent for Company Whose Technology Speeds Access to Relational Databases by as Much as 250 Times", April 1997, hereafter referred to as Reference B.

Regarding Claims 1 & 2, Bayer teaches receiving votes at the server in response to the survey question (Figure 13 #98, votes received; column 2 line 39, server provides an addressable voting site); and computing a final voting result to the survey question in real-time (Figure 13 #98, votes received and results page constructed; column 2 line 19-20, in real time since votes can see results when they vote). Bayer does not teach high density voting over a computer network using an object residing on a server that maintains persistent connections between the object and a database; caching the votes

received in a memory cache using the object; using the cached votes in calculating a result. Persistence Software Inc.'s "Live Object Cache" (LOC) does teach high density transactions (reference A column 8 line 31-33, access to cache is much faster than to database, including computing voting results) over a computer network using an object residing on a server (reference A column 5 line 59-61, object-oriented application residing on computer system) that maintains connections between the object and a database (reference A column 8 line 18-20, transactions between object and database); caching the votes received in a memory cache using the object (reference A column 7 line 29-31, data structure in cache); using the cached votes in calculating a result (reference A column 17 line 40-45, cache data can be transacted). LOC teaches that this approach to database management can significantly improve performance (reference B paragraph 3 line 5, as much as 250 times). LOC teaches the ability to share dynamic information between many users (reference B paragraph 3 line 3, application servers sharing dynamic information). It would have been obvious to one skilled in the art at the time of the invention to combine network voting, as taught by Bayer, with high density transactions writing to a database, as taught by LOC, for the motivation of having an internet voting system that can perform high performance receiving of votes. Bayer and LOC do not teach persistent connections used to connect an object application to a database. The examiner takes Official Notice that persistent connections used in object-oriented programming to connect an object application to a database are well known in the art and are providing by most object programming languages, including Java and C++. Persistent connections enable an object-oriented

application to always have a connection to a database. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Bayer and LOC, with maintaining persistent connections between the object and the database, for the purpose of enabling high density interactive voting over a network that maintains persistent connections to a voting database.

Regarding Claim 3, Bayer does not teach the object being resident in computer memory on the server. LOC teaches the object being resident in computer memory on the server (reference A column 5 line 60-61, object is program employed on appropriate computer system). LOC teaches that having the object resident in memory and able to query the cache results in a significant performance improvement over interacting with the database directly (reference A column 17 line 44-45, performance significantly improved by manipulating cache rather than database). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 1, as taught by Bayer and LOC, with having an object resident in computer memory on the server, as taught by LOC, for the purpose of improving performance by reducing unnecessary and time-consuming direct queries to the database.

Regarding Claim 4, Bayer does not teach having the object establish and maintain at least three persistent connections. The examiner takes Official Notice that it is established and well known in the art to program persistent connections in object-oriented applications, whether there be three or more persistent connections, depending on the requirements of the particular application. Programming languages such as Java

and C++ have provisions for establishing and maintaining persistent connections in the course of creating object-oriented applications. These connections ensure that an application has a continuous link to either a database or other related applications to ensure accessibility during the course of program execution. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 1, as taught by Bayer and LOC, with having the object establish and maintain at least three persistent connections, for the purpose of ensuring continuous accessibility to other applications and/or databases during the course of program execution.

Regarding Claim 5, Bayer teaches raw votes (Figure 3L, answerID field) cast by each of the voters (column 9 line 46, each response from a voter is put in table).

Regarding Claim 6, Bayer does not teach the persistent connections including current voting results obtained using the cached votes. LOC teaches obtaining results using information, including votes, that are in an object cache (reference A column 17 line 40-43, database requests can be performed in cache rather than database itself). LOC teaches that using the object cache to tabulate results is preferable to using the database itself since it greatly enhances performance (reference B paragraph 3 line 5, performance using object cache improves performance 250 times.). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 4, as taught by Bayer and LOC, with current voting results obtained using the cached votes, as taught by LOC, for the purpose of improving performance by performing data tabulation using an object cache. Bayer and LOC do

not teach persistent connections. The examiner takes Official Notice that persistent connections used in object-oriented programming to connect an object application to a database are well known in the art and are providing by most object programming languages, including Java and C++. Persistent connections enable an object-oriented application to always have a connection to a database. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 4, as taught by Bayer and LOC, with using persistent connections to the database, for the purpose of improving performance by performing data tabulation using an object cache with persistent connections to the database.

Regarding Claim 7, Bayer teaches voting in response to the survey questions asked during an event (column 6 line 50-51, surveys are programmed to start in advance of certain days), including a definition of the event (column 6 line 33-34, voting campaign comprised of one or more surveys; column 6 line 55, survey start dates set in advance).

Regarding Claim 8, Bayer does not teach tabulating the cached votes to generate intermediate results and sending the results to the database. LOC teaches tabulating the cached votes to generate intermediate voting results (reference A column 17 line 40-44, data in cache may be manipulated) and sending the results to the database (reference A column 8 line 18-19, transactions committed and begun in database). LOC teaches that having the object resident in memory and able to query the cache results in a significant performance improvement over interacting with the database directly (reference A column 3 line 1-2, hundreds or thousands of

unnecessary database queries result from directly interacting with database; reference A column 17 line 44-45, performance significantly improving by manipulating cache rather than database). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 1, as taught by Bayer and LOC, with tabulating the cached votes to generate intermediate voting results and sending the intermediate voting results to the database, as taught by LOC, for the purpose of improving performance by reducing unnecessary and time-consuming direct queries to the database.

Regarding Claim 9, Bayer teaches tabulating the intermediate voting results to compute final voting results (column 17 line 18-20, for each set of responses, percentages and histogram are calculated).

Regarding Claim 10, Bayer teaches tabulating the intermediate voting results continuously to compute final voting results in real time (Figure 13 #98, receive votes; Figure 14 #124, votes added to totals, column 2 line 19-20, in real time since votes can see results when they vote).

Regarding Claim 11, Bayer teaches creating the survey question (column 2 line 60-61, question created based on campaign)

Regarding Claim 12, Bayer teaches defining an event in which the survey question is asked (column 6 line 50-51, start date set for survey in advance; column 6 line 53-54, surveys are set in queue order prior to offering to customers), and checking a validity of the survey question and the event definition to ensure accuracy (Figure 7 – add or modify campaign, Figure 8 – add or modify survey question, Figure 9 – add or

modify survey). Bayer teaches that the administrator can check to see if particular questions exist for a survey (column 13 line 21) and can review or modify the question if needed (column 13 line 37, review or modify page for changing question).

Regarding Claim 13, Bayer teaches determining whether there has been a new survey question created and, if so, then updating the database (column 13 line 21-23, administrator checks if question exists; column 13 line 29, QuestionType table in database is updated by administrator).

Regarding Claim 14, Bayer teaches an interactive voting system using a computer network, comprising: a server in communication with the computer network for receiving voting data (column 2 line 39, server providing an addressable voting site) from voters in response to a polling question presented to the voters (column 2 line 60-61, survey of at least one question is generated for the voters). Bayer does not teach an object residing in memory on the server for caching at least some of the voting data; a database having a connection with the object that processes the cached voting data and uses the cached voting data to compute an intermediate result. LOC does teach an object residing in memory on the server (reference A column 4 line 21-21, object oriented application being executed in digital computing system) for caching at least some of the data (reference A column 4 line 31-32, cohesive data structure comprises object cache); and a database having a connection with the object (reference A column 4 line 45-46, object locks data in database) that processes the cached voting data and uses the cached data to compute an intermediate result (reference A column 17 line 40-44, data in cache may be manipulated, including calculation of an intermediate or final

result). LOC teaches that having the object resident in memory and able to query the cache results in a significant performance improvement over interacting with the database directly (reference A column 3 line 1-2, hundreds or thousands of unnecessary database queries from directly interacting with database; reference A column 17 line 44-45, performance significantly improving by manipulating cache rather than database). LOC teaches this performance improvement supports high density applications. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Bayer, with an object residing in memory on the server for caching at least some of the data and a database having a connection with the object that processes the cached voting data and uses the cached voting data to compute an intermediate result, as taught by LOC, for the purpose of providing a high density interactive voting system.

Regarding Claim 15, Bayer does not teach the object contains some of the voting data as well as procedures and instructions for manipulating at least some of the data. LOC teaches that the object contains some of the voting data (reference A column 17 line 40-44, object performs certain requests on data) and that the object contains procedures and instructions for manipulating data (reference A column 11 line 45-47, object application issues commands; reference A column 11 line 52-53, commands include database transactions; reference A column 17 line 42-43; commands executed on cache are equivalent to commands executed on database). LOC teaches that manipulating data in the object significantly improves performance (reference A column 3 line 1-2, hundreds or thousands of unnecessary database queries from directly

interacting with database; reference A column 17 line 44-45, performance significantly improving by manipulating cache rather than database). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 14, as taught by Bayer and LOC, with an object containing at least some of the voting data as well as procedures and instructions for manipulating at least some of the voting data, as taught by LOC, for the purpose of providing a high density interactive voting system.

Regarding Claim 16, Bayer teaches tabulating the final voting result using the intermediate voting result (Figure 13 #98, receive votes; Figure 14 #124, votes added to totals, column 17 line 18-21, results calculated for each voter from intermediate results).

Regarding Claim 17, Bayer teaches tabulating the final voting result in real time (Figure 13 #98, receive votes; Figure 14 #124, votes added to totals, column 17 line 18-21, results calculated for each voter from intermediate results in real time).

Regarding Claims 18 and 19, Bayer does not teach one, per Claim 18, or three, per Claim 19, persistent connection(s) between the object and database that is maintained by the object. The examiner takes Official Notice that it is established and well known in the art to program persistent connections in object-oriented applications, whether there be three or more persistent connections, depending on the requirements of the particular application. Programming languages such as Java and C++ have provisions for establishing and maintaining persistent connections in the course of creating object-oriented applications. These connections ensure that an application has a continuous link to either a database or other related applications to ensure

accessibility to the application or database during the course of program execution. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 14, as taught by Bayer and LOC, with having the object establish and maintain at least three persistent connections, for the purpose of ensuring continuous accessibility to the database during the course of program execution.

Regarding Claim 20, Bayer teaches an authoring system that enables a user to define an event (column 6 line 50-51, start date set for survey as part of campaign in advance; column 6 line 53-54, surveys are set in queue order prior to offering to customers) and create polling questions associated with the event (Figure 4 #52, add/modify campaign; Figure 4 #56, add/modify question) for distribution to the voters (Figure 2A, sample webpage).

Regarding Claim 21, Bayer teaches a staging component that copies the event definition and polling questions to the database (column 3 line 2-3, elements of survey webpages, including questions, are stored in a database; Figure 16A, campaign database table structure that defines campaigns and associated surveys; column 3 line 3-5, administrator can modify/create campaign information, see also Figure 4 #52).

Regarding Claim 22, Bayer teaches an interactive voting system (column 2 line 19, system shows voters results of the surveys; Figure 2A, interactive webpage sample) that uses a computer network to process voting data (Figure 13 #98, votes received and results page constructed), comprising a server (column 2 line 39, server receives votes) in communication with the computer network (column 2 line 18, system for conducting

surveys over a network). Bayer does not teach a high density system, an object residing in memory on a server, the object receiving voting data from a client in communication with the computer network and transferring the voting data to a database through persistent connections between the object and the database such that the voting data is used to compute final voting results in real-time. LOC teaches high density transactions (reference A column 8 line 31-33, access to cache is much faster than to database) using an object residing in memory on a server (reference A column 5 line 59-61, object oriented application residing on an appropriate computer system), the object receiving data from a client in communication with the computer network (reference B paragraph 3 line 1-3, application servers share dynamic business information among many users) and transferring the data to a database (reference A column 8 line 18-20, transactions begun and committed between object and database) through connections between the object (reference A column 17 line 40-44, data in cache may be manipulated by object, see also Figure 1 #80) and the database such that the data is used to compute final results (reference A column 8 line 18-19, transactions from object committed and begun in database) in real-time (reference A column 11 line 44-46, calls to object cache are determined by developer in accordance with goals of the application being programmed, including in real time). LOC teaches that having the object resident in memory and being able to query the database directly (reference A column 18 line 17-20, object cache may be omitted if analogous data structure used elsewhere) results in a significant performance improvement over interacting the database directly (reference A column 3 line 1-2, hundreds or thousands

of unnecessary database queries from directly interacting with database; reference A column 17 line 44-45, performance significantly improved). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 22, as taught by Bayer, to include high density voting over a computer network using an object residing in memory on a server, the object receiving voting data from a client in communication with the computer network and transferring the voting data to a database such that the data is used to compute results in real time, as taught by LOC, for the purpose of enabling high density interactive voting over a network. The examiner takes Official Notice that persistent connections used in object-oriented programming to connect an object application to a database are well known in the art and are provided by most object programming languages, including Java and C++. Persistent connections are used to ensure that a database may always be accessed throughout the course of program execution. It would be obvious to one of ordinary skill in the art to combine the high-density network voting system, as taught by Bayer and LOC, with the object writing voting data to a database through persistent connections between the object and database, for the purpose of ensuring the object always has a connection to the database during the course of program execution.

Regarding Claim 23, Bayer does not teach a vote cache that receives and caches at least some of the voting data from the object. LOC teaches a vote cache that receives and caches at least some of the voting data from the object (reference A column 17 line 40-45, data in the cache can be transacted by object). LOC teaches that having the object able to query the cache results in a significant performance

improvement over interacting the database directly (reference A column 3 line 1-2, hundreds or thousands of unnecessary database queries from directly interacting with database; reference A column 17 line 44-45, performance significantly improving by manipulating cache rather than database). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 22, as taught by Bayer and LOC, with having a vote cache that receives and caches at least some of the voting data from the object, as taught by LOC, for the purpose of improving performance by reducing unnecessary and time-consuming direct queries to the database.

Regarding Claim 24, Bayer does not teach a processor that tabulates the cached voting data from the vote cache to generate intermediate voting results. LOC teaches a processor that tabulates the cached voting data from the vote cache to generate intermediate voting results (reference A Figure 1, processor tabulates data from cache; reference A column 8 line 10-11, processor executes object oriented application; reference A column 17 line 42-43, object performs requests on cache, including tabulating intermediate results). Bayer teaches that having a computer system to conduct surveys and quickly provide results (column 1 line 32-34, conducting and tabulating a survey manually is time consuming) is of value to voters since they are very interested in comparing their votes with those of others (column 1 line 37-40, voters want to compare their votes and opinions with others) as provided by calculating intermediate results. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 23, as taught by Bayer

and LOC, with tabulating the cached voting data from the vote cache to generate intermediate voting results, as taught by LOC, for the purpose of providing voters with immediate feedback.

Regarding Claim 25, Bayer teaches tabulating the intermediate voting results continuously to compute final voting results in real time (Figure 13 #98, receive votes; Figure 14 #124, votes added to totals, column 2 line 19-20, in real time since votes can see results when they vote).

Regarding Claims 26 and 27, Bayer teaches a computer network having a plurality of clients (Figure 1 #18, network client computer voter/registrant) and a server (Figure 1 #16, transaction server; column 2 line 39, server receives votes), a computer-implemented method for providing interactive voting (column 2 line 19, system shows voters results of the surveys; Figure 2A, interactive webpage sample) over a computer network (Figure 1 #20, network), comprising: transmitting voting data from the plurality of clients to the Server (Figure 1 #18, voter is connected to a server #16, through a voting website #22; column 2 line 39, server receives votes); providing a database that stores at least some of the voting data (Figure 1 #15, database; column 6 line 66-67, tables in database store voting information); and using the processed voting data to tabulate a final voting result (column 9 line 46, each response from a voter is put in table; column 17 line 18-20, for each set of responses, percentages and histogram are calculated). Bayer does not teach high density voting and providing an object resident in memory on the server that contain procedures and instructions for manipulating the voting data; establishing and maintaining a persistent connection, either one per Claim

26 or three per Claim 27, between the object and the database to facilitate processing of the voting data. LOC teaches high density voting (reference A column 8 line 31-33, access to cache is much faster than to database, including transacting voting results) and providing an object resident in memory on the server (reference A column 5 line 59-61, object-oriented application residing on an appropriate computer system) that contain procedures and instructions for manipulating the voting data (reference A column 17 line 40-45, data in the cache can be transacted); establishing and maintaining a connection between the object and the database to facilitate processing of the voting data (reference A column 8 line 18-19, transactions committed and begun in database as determined by object). LOC does not teach persistent connections whether singly as per Claim 26 or at least three as per Claim 27. LOC teaches that this approach to database management can significantly improve performance (reference A column 17 line 44-45, performance improved; reference B paragraph 3 line 5, as much as 250 times that of normal relationship database architecture) and supports high density applications. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claims 26 and 27, as taught by Bayer above, with the modifications provided by LOC, as discussed above, for the purpose of providing high density interactive voting over a network, for the reasons discussed above. Bayer and LOC do not teach persistent connections, whether one as per Claim 26, or three as per Claim 27. The examiner takes Official Notice that persistent connections, whether singly as per Claim 26 or at least three per Claim 27, used in object-oriented programming to connect an object application to a database are

well known in the art and are provided by most object programming languages, including Java and C++. Programmers are able to specify the number of persistent connection to a database through specifying parameters in the program language. It would have been obvious to one of ordinary skill in the art to combine the teachings of Bayer and LOC, as discussed above, with using one, as per Claim 26, or three as per Claim 27, persistent connections to the database for the purpose of ensuring the high density voting system always has access to the database during the course of program execution.

Regarding Claim 28, Bayer does not teach processing the voting data by caching at least some of the voting data in a vote cache. LOC teaches processing the voting data by caching at least some of the voting data in a vote cache (reference A column 17 line 40-44, data manipulations performed on cache rather than database). LOC teaches that having the object able to query the cache results in a significant performance improvement over interacting the database directly (reference A column 3 line 1-2, hundreds or thousands of unnecessary database queries from directly interacting with database; reference A column 17 line 44-45, performance significantly improving by manipulating cache rather than database). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the limitations of Claim 26, as taught by Bayer and LOC, with processing the voting data by caching at least some of the voting data in a vote cache, as taught by LOC, for the purpose of improving the performance of the high density interactive voting method.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,256,675 by Rabinovich discloses a system and method for working with objects on a network.

US Patent 5,970,385 by Pykalisto discloses televoting in an intelligent network.

US Patent 6,567,818 by Frey discloses employing management policies to manage instances of objects.

US Patent 5,473,673 by Van Wijk discloses a system for transmitting selection code signals to TV or radio stations.

"The Design of a Robust Persistence Layer for Relational Databases" by Scott Ambler discloses programming techniques and methodologies for managing connections to databases.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is 703-305-0550. The examiner can normally be reached on 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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